

REMARKS

Reconsideration is requested.

The specification has been amended to include the attached Sequence Listing in place of any previously filed Sequence Listing. The attached paper and computer readable copies of the Sequence Listing are the same. No new matter has been added. A separate Statement to this effect is attached.

New pages 6, 30 and 31 are attached and a marked-up copy of the same is attached which indicates the changes in hand-written text.

The Figures have been amended to include separately labeled sheets (i.e., A, B, C,... etc.) and sequence identifiers. No new matter has been added. A separate marked-up copy of the figures indicating the changes is not believed to be required however the applicants will file the same upon a further request by the Examiner.


An early and favorable decision on the Petition of April 11, 2003, prior to issuance of a further Action on the merits, is requested along with a Notice of Allowance relating to all the pending claims.

MAERTENS, et al.
Serial No. 09/851,138
May 28, 2003

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____


B. J. Sadoff
Reg. No. 36,663

BJS:
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

- 153)
VYEANGMILHL as for subtype 7d (SEQ ID NO 154)
VYEAGDIILHL as for type 10 (SEQ ID NO 155)
VREDNHLRCWMAL or VRENNSSRCWMAL as for subtype 1d
5 (SEQ ID NO 156 and 157)
IREGNISRCWVPL as for subtype 1f (SEQ ID NO 158)
ENSSGRFHCWIP as for subtype 2e (SEQ ID NO 159)
ERSGNRTFCWTAV as for subtype 2f (SEQ ID NO 160)
ELQGNKSRWIPV as for subtype 2g (SEQ ID NO ~~162~~ 161)
10 ERHQNQSRWIPV as for subtype 2h (SEQ ID NO ~~163~~ 162)
EWKDNTSRWIPV as for subtype 2i (SEQ ID NO ~~164~~ 163)
EREGNSSRCWIPV as for subtype 2k (SEQ ID NO ~~165~~ 164)
VREGNQSRCWVAL or VRTGNQSRCWVAL or VRVGNQSSCWVAL or
VRVGNQSRCWVAL or VKEGNHSRCWVAL as for subtype 4k A insert
15 (SEQ ID NO ~~166~~, 167, 168 or 169) 165,
VKTGNTSRCWVAL as for subtype 4l (SEQ ID NO 170)
IKAGNESRCWLPV as for type 9 (SEQ ID NO 171)
VKEGNQSRCWVQA as for subtype 7c (SEQ ID NO 172)
VKXXNLTKCWLSA as for subtype 7d (SEQ ID NO 173)
20 VRSGNTSRCWIPV as for type 10 (SEQ ID NO 174)
VKNASVPTAA or VKDANVPTAA as for subtype 1d (SEQ ID NO 175
and 176)
ARIANAPIDE as for subtype 1f (SEQ ID NO 177)
VSKPGALTKG as for subtype 2e (SEQ ID NO 178)
25 VSRPGALTRG as for subtype 2f (SEQ ID NO 179)
VNQPGALTRG as for subtype 2g (SEQ ID NO 180)
VSQPGALTRG as for subtype 2h (SEQ ID NO 181)
VSQPGALTKG as for subtype 2i (SEQ ID NO 182)
VSRPGALTEG as for subtype 2k (SEQ ID NO 183)
30 APYIGAPLES or APYTAAPLES as for subtype 4k (SEQ ID NO 184 and 185)
APILSAPLMS as for subtype 4l (SEQ ID NO 186)
VPNSSVPIHG as for type 9 (SEQ ID NO 187)
VPNASTPVTG as for subtype 7c (SEQ ID NO 188)

IQVKNASGIYHL as for type 9 (SEQ ID NO 135)
 AHYTNKSGLYHL as for subtype 7c (SEQ ID NO 136)
 LNYANKSGLYHL as for subtype 7d (SEQ ID NO 137)
 LEYRNASGLYMV as for type 10 (SEQ ID NO 138)

5 Region V2 encompasses amino acids 213 to 223. The following unique sequences can be found in the V2 region as shown in Figure 2:

IYEMDGMIMHY or IYEMSGMILHA as for subtype 1d, (SEQ ID NO 139
 and 140)

VYEAKDIILHT as for subtype 1f (SEQ ID NO 141)

10 VWQLXDAVLHV as for subtype 2e (SEQ ID NO 142)

VWQLRDAVLHV as for subtype 2f (SEQ ID NO 143)

IWQMKGAVLHV as for subtype 2g (SEQ ID NO 144)

VWQLKDAVLHV as for subtype 2h (SEQ ID NO 145)

VWQLEEAVALHV as for subtype 2i (SEQ ID NO 146)

15 TWQLXXAVLHV as for subtype 2k (SEQ ID NO 147)

VYEADHHILHL or VYEADHHILAL or VFEADHHILHL as for subtype 4k
 (SEQ ID NO 148, 149 and 150)

VYESDHHILHL as for subtype 4l (SEQ ID NO 151)

VFEAETMILHL as for type 9 (SEQ ID NO 152)

20 VYEATLILHL as for subtype 7c (SEQ ID NO 153)

VYEANGMILHL as for subtype 7d (SEQ ID NO 154)

VYEAGDIILHL as for type 10. (SEQ ID NO 155)

Region V3 encompasses the amino acids 230 to 242. The following unique
 V3 region sequences can be deduced from Figure 2:

25 VREDNHLRCWMAL or VRENNSSRCWMAL as for subtype 1d
 (SEQ ID NO 156 and 157)

IREGNISRCWVLP as for subtype 1f (SEQ ID NO 158)

ENSSGRFHCWIPV as for subtype 2e (SEQ ID NO 159)

ERSGNRTFCWTAV as for subtype 2f (SEQ ID NO 160)

30 ELQGNKSRWCWIPV as for subtype 2g (SEQ ID NO ~~161~~ 161)

ERHQNQSRWCWIPV as for subtype 2h (SEQ ID NO ~~162~~ 162)

EWKDNTSRWCWIPV as for subtype 2i (SEQ ID NO ~~163~~ 163)

EREGNSSRCWIPV as for subtype 2k (SEQ ID NO ~~164~~ 164)

VREGNQSRCWVAL or VRTGNQSRCWVAL or VRVGNQSSCWVAL or
VRVGNQSRCWVAL or VKEGNHRCWVAL as for subtype 4k

(SEQ ID NO 166, 167, 168 or 169) *insert 165,*

VKTGNTSRCWVAL as for subtype 4l (SEQ ID NO 170)

5 IKAGNESRCWLPV as for type 9 (SEQ ID NO 171)

VKXXNQSRCWVQA as for subtype 7c (SEQ ID NO 172)

VKTGNLTKCWLSA as for subtype 7d (SEQ ID NO 173)

VRSGNTSRCWIPV as for type 10 (SEQ ID NO 174)

10 Region V4 encompasses the amino acids 248 to 257. The following unique
V4 region sequences can be deduced from figure 2:

VKNASVPTAA or VKDANVPTAA as for subtype 1d (SEQ ID NO 175 and 176)

ARIANAPIDE as for subtype 1f (SEQ ID NO 177)

VSKPGALTKG as for subtype 2e (SEQ ID NO 178)

VSRPGALTRG as for subtype 2f (SEQ ID NO 179)

15 VNQPGALTRG as for subtype 2g (SEQ ID NO 180)

VSQPGALTRG as for subtype 2h (SEQ ID NO 181)

VSQPGALTKG as for subtype 2i (SEQ ID NO 182)

VSRPGALTEG as for subtype 2k (SEQ ID NO 183)

20 APYIGAPLES or APYTAAPLES as for subtype 4k (SEQ ID NO 184
and 185)

APILSAPLMS as for subtype 4l (SEQ ID NO 186)

VPNSSVPIHG as for type 9 (SEQ ID NO 187)

VPNASTPVTG as for subtype 7c (SEQ ID NO 188)

VQNASVSIRG as for subtype 7d (SEQ ID NO 189)

25 VKSPCAATAS as for type 10 (SEQ ID NO 190)

Region V5 encompasses the amino acids 294 to 303. The following unique
V5 region peptides can be deduced from figure 2:

SPRMHHTTQE or SPRLYHTTQE as for subtype 1d (SEQ ID NO 191
and 192)

30 TSRRHWTVQD as for subtype 1f (SEQ ID NO 193)

APKRHYFVQE as for subtype 2e (SEQ ID NO 194)

SPQYHTFVQE as for subtype 2f (SEQ ID NO 195)

SPQHNNFSQD as for subtype 2g (SEQ ID NO 196)